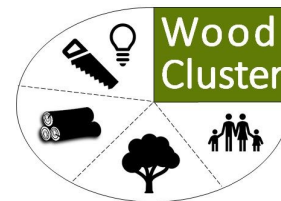


# Narrowing the wood supply gap through on-farm wood production in Tanzania



## POLICY BRIEF



Small-scale woodlot and wood processing in Tanzania (© E. Auch, ©B. Temu)

Wood transportation in Iringa Region, Tanzania (© J. Mwambusi)

## Key Messages

- Based on recent estimates, the average demand for wood at 1.39 m<sup>3</sup>/year/capita surpasses the average annual allowable cut at 0.95 m<sup>3</sup>/year/capita<sup>1</sup>
- The annual wood supply deficit in Tanzania is estimated to be 19.5 million m<sup>3</sup><sup>1</sup>
- Underlying causes for the wood supply gap include: weak value chains that undermine market access, unsustainable wood production, and harvesting practices
- Policies targeted at strengthening the institutional capacity of the forestry sector at local and national levels are suggested to increase the share contribution of the sector to the national economy
- To foster small-scale wood production, government needs to expedite efforts in tenure security, and making financial services, extension services, and market information accessible to farmers
- Continuous collaboration between the government and actors in the wood value chain is crucial
- This policy brief is intended for forest and natural-resource policymakers, wood industrial sector, non-governmental organizations, and academia dealing with the forestry and wood sector in Tanzania

# Prevailing challenges

Wood products are integral to the livelihoods of households in Sub-Saharan Africa due to the reliance on firewood, charcoal, and wood biomass for cooking and heating purposes. Wood remains important with the increasing price of alternative energy sources such as fossil fuel-related products. This has triggered an increase in the demand for wood products, an increase which has similarly fueled deforestation and forest degradation.

A large portion of the wood in the local and national market comes from the farms and woodlots of small and medium-scale wood producers since they account for 54% of Tanzania's total wood supply<sup>2</sup>. Therefore, it is increasingly important to understand the prevailing conditions constraining the productivity of these small and medium-scale wood producers from meeting the national wood demand.

Therefore, in diagnosing the wood supply deficit situation in Tanzania, the WoodCluster project identified some of the key challenges to attaining sustainable wood supply.

- Limited technical and soft skills for the actors involved in the wood products sector.
- Limited access to information for the wood producers about market prices, consumer demands, and preferences which limits the bargaining power of the smallholder farmers to cash in more from wood sales
- Restricted access to finance and credit services
- Conflicting standards for wood grading requirements
- Poor infrastructure related to roads and wood processing facilities
- Strong dependence on middlemen due to the absence of organized structures for collective wood production and marketing
- Limited value addition along the wood value chains constrains profit maximization because most wood products reach the market in an unprocessed or semi-processed form.

# Project Methods



# National Wood Scenarios

The workshop explored ways to close the wood supply gap by analyzing three main scenarios. These scenarios were: Business-As-Usual (BAU), ii) increasing the national wood supply scenario, and iii) decreasing the national wood demand scenario. Participants from government, non-governmental organizations, the private sector, and academia were involved in critically analyzing and discussing these scenarios in groups to propose potential options to achieve a sustainable supply of wood under each scenario. A set of questions were developed to guide the group discussions to provide context to the scenario analysis.

The need for the wood products sector to diversify its wood production was one of the key lessons under the BAU scenario. The justification for promoting this idea is to upscale the forest sector's contribution to national economic development by strengthening wood value chains to provide employment, value-added, and a trade balance. This is an essential element in the effort to revolutionize the forest sector and make it lucrative for the actors involved. Through this, wood products intended for the local and national markets would be in a processed and finished state, commanding a higher price. This trend has the potential to extend beyond the national level to generate foreign exchange for the country through the export of value-added wood products to the international timber markets in Europe and Asia.

To achieve the future vision of increasing the wood supply at the national level, it is important for a forestry industry and marketing board to be instituted at the national level to oversee the entire wood production process. Of the several challenges discussed, the need for land tenure security and clear property rights to access and utilize land was identified as crucial to achieving the future vision of the forest sector. In addition, the formation and strengthening of support organizations for smallholder farmers such as out-grower schemes, tree growers' associations, and cooperatives were amongst the other options mentioned. Government intervention is highly

solicited in the areas of providing extension services, good roads, and adequate power supply to support wood processing activities, especially for the local mobile sawmills called "ding-dong".

Reducing the national demand for wood calls for innovative approaches and the provision of workable alternative solutions.

The option of exploring the utilization of non-wood-based products for cooking and heating requires a feasibility study on their acceptability by the citizen for potential adoption. Technology is crucial here; therefore, there must be a political will to support industrial development and manufacturing.

The common candidates for replacing wood-based products for energy purposes are agricultural waste, energy-efficient stoves, gas cookers, burners, etc. The associated cost implication of a switch to alternative energy sources should be clearly understood, and the policy environment should be in place to ensure that the manufacturers of these products can maximize profit from their products. Increasing the taxes and price of wood-based energy products such as charcoal and firewood can disincentivize people from buying them, resulting in decreased demand. Moreover, if the price of wood products is at par with alternative products, people will opt to buy the former since they are more energy-efficient and clean. This is the environmental significance of promoting this scenario because it is a win-win for sustainable wood production and environmental management. However, a conscious effort should be made so that alternatives to wood products do not fully substitute wood products, otherwise, such a situation can undermine the forestry sector's contribution to the national economy. Therefore, a balance between the utilization of wood products and their replacement with non-wood products is essential for the success of the scenario to downsize the national wood demand.

# Wood value chain development

As the demand for wood products continues to increase, we need to find ways to sustainably produce wood to meet the demand of society. This comes at a cost to forest management when the fundamental principle of sustainability is missing from the plan. To better understand the wood supply and demand situation, it is critical to understand how wood moves along the value chain from the producers through to the market and then to the final consumers. There are several transformational stages in the process and having an idea of the various constraints at every stage of the value chain is paramount to proffer solutions for upgrading the value chain to become efficient and profitable for the actors involved. This was the rationale of the workshop on wood value chains from which the concept of the Participatory Innovative Platform (PIP) emerged.

A key lesson from the workshop is that challenges within the value chains of wood products cut across all the actors involved. To demystify these challenges, it is important to implore the interdisciplinary perspectives of people involved in the value chain. The workshop identified challenges for the wood producers, processors, and traders. The wood producers were mainly: smallholder tree growers, government plantation forests, and private plantation forestry companies. For the processors, the mobile sawmill (*ding-dong*) was associated with the smallholder tree growers, the stationary sawmill with the government plantation forest, and the private plantation forest companies had their own sawmills. The traders were mainly sawn wood traders operating with the mobile sawmills, companies that transported wood from the government plantation forest, and sawn wood transporters that worked with the private plantation forest companies.

The prominent challenges faced by the wood producers can be aggregated into two; i) smallholder tree growers and ii) government and private plantation forest companies.

Smallholder farmers, by nature, are engaged in small-scale wood production, mainly on a small area of land. They are faced with uncertainty about the tenure security of the land, so they can not maximize their production output. They are faced with limited access to credit services, extension services, and entrepreneurship training. They are incapable of firefighting because they lack fire equipment. Average wood production in

their plantations is low because of poor silvicultural practices and limited access to quality planting materials (seeds, seedlings). With a limited diversification strategy, their alternatives to earn an income are restricted, a factor that pushes them to harvest their trees prematurely to meet their immediate cash needs.

The challenges are quite different for the government and private plantation forestry companies who struggle to set the price of wood products from their plantations. They always exclude the cost of land during price setting, which has cost implications. This is much more critical for the private plantation forest companies because they incur high land-related costs in lease payments, rent, or purchases. Therefore, excluding this cost in the price-setting makes it unlikely for them to be profitable.

The challenges faced by the wood processors are the same whether it is a mobile sawmill, stationary sawmill, or sawmill owned by a private forestry company. The only exception is the government's intention to slam a ban on the operation of mobile sawmills in an effort to improve wood processing technology in the country. The absence of an agreed standardized system for wood grading limits the profitability of wood processors because the willingness of customers to buy wood products based on quality is low. Therefore, producing high-quality wood products does not give a processor a comparative advantage over the others. Limited wood processing infrastructure also limits the wood processors from utilizing wood residues to make other by-products of wood.

Among the key challenges the sawn wood traders encountered, the prominent ones have to do with the lack of a standardized wood grading system because it undermines price setting and disincentivizes people from opting to pay for a quality wood product. Limited support from the government to link sawn wood traders to export markets was also identified. The level of collaboration between the sawn wood traders and government officials was low, which resulted in a lack of recognition for trader groups and unions by the government. The wood traders also struggled to pay many taxes and complicated bureaucratic procedures.



# Policy actions and recommendations to achieve a sustainable wood supply

Sustainable wood supply is a prerequisite to sustaining the livelihoods of communities in Tanzania. The potential to transform wood production from just a diversification strategy for the smallholder farmers into their major livelihood activity can contribute immensely to social and economic stability in local communities. Therefore, it is imperative that governments, private investors, and NGOs provide an enabling environment where the rights to tenure security and the access to resources needed to upscale wood production and marketing are guaranteed. This is the foundation for getting more people to participate in wood production, which in turn will promote the sector's contribution to the national economy.

Government should increase extension services for the smallholder farmers to foster the transfer of technical skills, knowledge, and technology. As part of the concern to have a standardized wood grading system, government policies should endeavor to honour this commitment so that a standardized system with specified requirements for wood grading is put in place with the legal instrument to compel adherence by the actors involved.

There should be conscious efforts to make resources such as capital and information very accessible to the actors in the wood value chain. Financial institutions could be encouraged to provide credit services for the smallholder farmers to maximize their production. Likewise, market information should be made available with unlimited access through public announcements on the radio, text messages on phones, and mobile applications.

Government should prioritize the need to review forestry laws and regulations, among other pending policy reviews. Policy reviews should be focused on strengthening wood value chains by supporting the actors with the needed resources and skills and enforcing laws to minimize the illegality of wood products in the value chain. A strong commitment from the government is essential to drive positive changes and attitudes of the actors.

Measures should be taken to foster collaboration between the government and the actors in the wood value chain. This is a crucial step towards decentralization and power-sharing, which is a fundamental governance arrangement to achieve the overarching goal of narrowing the wood supply gap in Tanzania by ensuring sustainable wood supply.

## References:

<sup>1</sup> NAFORMA (2015). National Forest Resources Monitoring and Assessment of Tanzania Mainland. Main results. Ministry of Natural resources & Tourism.

<sup>2</sup> FDT (2017). Forestry Development Trust. Tanzanian Wood Product Market Study.

# WoodCluster Project

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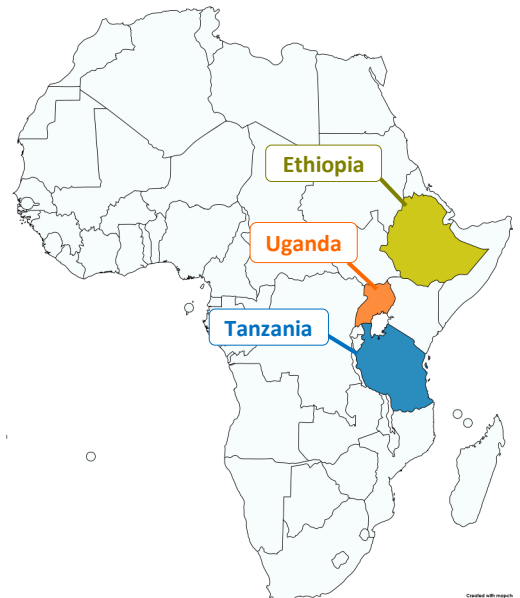
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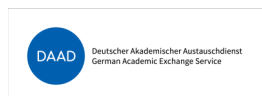
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